

CLAIMS.

1. A method for the manufacture of carboxyalkylinulin
5 by reacting inulin with monochlorocarboxylic acid under
alkaline conditions, characterized in that:

(a) from 25 to 150 molar-%, expressed in relation to the
molar amount of monosaccharide units in the inulin (100 %),
10 of the X-halogenoalkylcarboxylate, wherein the halogen is
selected from chlorine, bromine and iodine, the alkyl chain
contains from 1 to 5 carbon atoms, and X is an alkaline ion
from the group of sodium and potassium, is dispersed into an
aqueous medium;

15 (b) adding to and dispersing into the
halogenocarboxylate medium (a) the inulin to yield a slurry,
having a pH, measured on the slurry at a temperature of from
20 °C to 70 °C, in the range of from about 5 to 8, containing
20 from about 25 % to about 70 % by weight of the inulin,
expressed in relation to the amount of water (100 %-by
weight) in the slurry;

(c) heating the slurry (b) to a temperature from about
25 60 °C to about 90 °C, followed by concurrently adding
additional halogenoalkylcarboxylate, to yield a molar ratio
of halogenoalkylcarboxylate : inulin of from 1.0 to 5.0, and
an alkaline hydroxide, from the group of sodium and potassium
hydroxide, in a quantity equimolar to the total level of
30 halogenoalkylcarboxylate, plus an additional amount of the
alkaline hydroxide of from 10 to 50 molar-%, expressed in
relation to the molar amount of fructose units in the inulin

(100 %), to yield a reaction mixture pH in the range of from 8 to 12, measured at the reaction temperature (60 °C to 90 °C);

5 (d) continuing the reaction, after all the reagents have been added, for a period up to 90 minutes, at the reaction temperature; and

(e) recovering the carboxyalkylinulin reaction product
10 in a manner known per sé.

2. The method in accordance with Claim 1 wherein the halogenoalkylcarboxylate in step (a) represents from 70 % to 100 molar-% and wherein the slurry (b) contains from 40 % to
15 60 % by weight of inulin.

3. The method in accordance with Claims 1 or 2 wherein the molar ratio of halogenoalkylcarboxylate : inulin is in the range of from 1.5 to 4.5.

20 4. The method in accordance with Claim 1 wherein the slurry (b) is heated to a temperature in the range of from 70 °C to 90 °C.

5. The method
25 in accordance with Claims 1 and 4 wherein the pH of the reaction mixture is in the range of from 9.5 to 11.5.

6. The method in accordance with Claims 1 or 4 wherein the reaction is continued for a
30 period of from 20 to 60 minutes after all the reagents have been added.

7.

7. The method in accordance with any one of Claims 1 through 6 wherein the alkyl moiety in the carboxyalkylinulin is represented by a carbon chain having from 1 to 3 carbon atoms.

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8. The method in accordance with Claims 1 or 4 wherein the slurry (b) is heated to a temperature in the range of from 75 °C to 85 °C.

10 9. The method in accordance with Claims 1 or 7 wherein the carboxyalkylinulin is carboxymethylinulin.

10. The method in accordance with Claim 1 wherein the aqueous medium in step (a) contains optionally up to 35 %-by weight of the inulin.

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11. The method in accordance with Claim 10 wherein the aqueous medium in step (a) contains from about 10 % to about 30 %-by weight of the inulin.

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